

Lone Mountain Processing, Inc.

Natural Resource Damage Assessment Settlement

Nature of Incident

On October 24, 1996, approximately six million gallons of coal slurry were released by Lone Mountain Processing, Inc. (LMPI) of Lee County, Virginia into the Powell River watershed. The spill occurred when subsidence in a LMPI impoundment caused coal slurry to enter a system of abandoned underground coal mine-works. “Blackwater” was released into a series of tributaries of the Powell River watershed via a mine-works surface portal at Gin Creek. The “blackwater” release, a mixture of water, coal fines and associated contaminants, extended downstream into Tennessee. The ultimate repository for the components of the spill material is Norris Reservoir in Tennessee, which is located approximately 65 miles downstream from the spill discharge. There was little opportunity for wildlife emergency response or restoration activities for this incident. This release was preceded by another spill at LMPI on August 9, 1996.

Contaminant Overview

Many hazardous substances listed in 40 C.F.R. §302.4 were released by the spill. Most of these substances fall within the broad family of pollutants termed “polynuclear aromatic hydrocarbons” (PAHs). PAHs are toxic to aquatic organisms at concentrations in the part per million range. Other released contaminants included a number of heavy metals and several additives that are used to remove fine coal particles from the water column. After the spill, the U.S. Fish and Wildlife Service documented the presence of coal slurry materials in sediments and mussels collected from the Powell River. These contaminants impacted aquatic organisms through direct acute and chronic toxicity and indirectly by causing or contributing to the elimination of essential food organisms.



Federally listed endangered mussel species of the Powell River.

Natural Resource Overview

The upper Tennessee River Basin, which includes the Powell River watershed, is considered one of the nation’s most sensitive and biologically diverse freshwater ecosystems. Historically, 41 species of freshwater mussels were documented in the Powell River. The Powell River currently harbors the last remaining populations of two critically endangered mussels: the Cumberland monkeyface (*Quadrula intermedia*) and the Appalachian monkeyface (*Quadrula sparsa*). The coal slurry spill released sediments and hazardous substances that injured federally listed mussels and critical habitat for two federally listed fish: the yellowfin madtom (*Noturus flavipinnis*) and slender chub (*Erimystax cahni*). Because of their small size, juvenile mussels were especially vulnerable to smothering by the large quantities of silt and fines released during the spill.

These species represent a remarkably diverse and imperiled aquatic fauna in the Powell River watershed. The Virginia Department of Environmental Quality estimated that at least 11,240 fish, of a number of species, were killed as a result of the LMPI release, including known host species for federally listed endangered mussels.

Restoration Program Goal

When harmful substances enter the environment, fish, wildlife, and other natural resources are often injured. The Department of the Interior, along with State, Tribal and certain other Federal agencies, act as “Trustees” for the resources they respectively own, manage or control. In this case, since the resources injured were Federally listed endangered and threatened species and their critical habitat, trusteeship is with the Department of the Interior, acting through the U.S. Fish and Wildlife Service.



Biologist examining impacted biota.

Trustees seek to identify natural resources injured and determine the extent of the injuries, to recover damages from the polluters, and to plan and carry out natural resource restoration activities. These efforts are possible under the Natural Resource Damage Assessment and Restoration Program (NRDAR), whose goal is to restore natural resources lost to contamination. The U.S. Fish and Wildlife Service, along with other partners, hopes to accomplish this goal within the Powell River watershed in a way that also brings a cleaner, healthier environment to the area. A restoration plan will be developed with public input to achieve the recovery of endangered mussel species, protection of habitat for listed fish species, and population

LMPI Consent Decree

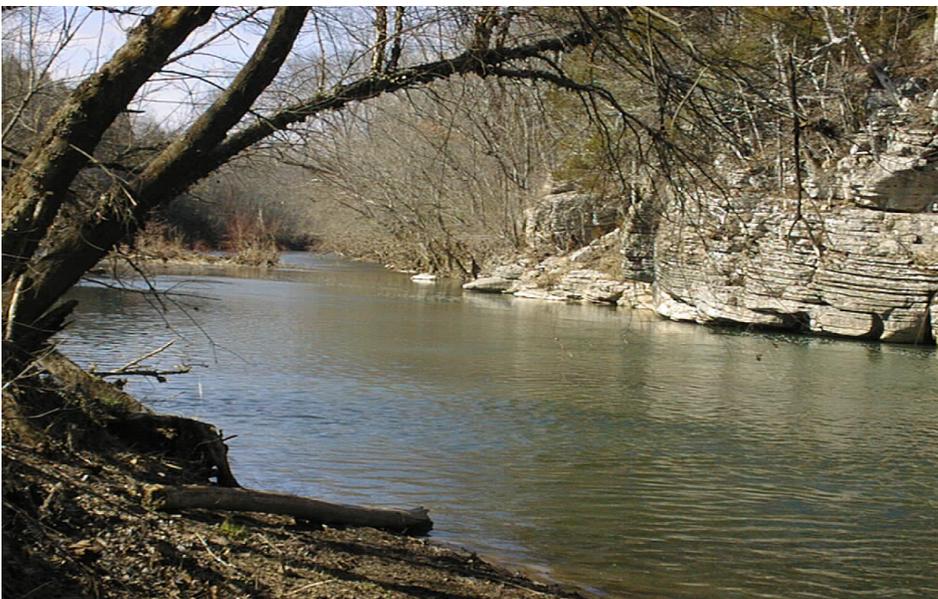
A Consent Decree (CD) was entered with the U.S. District Court for the Western District of Virginia, Big Stone Gap Division by the Department of the Interior and LMPI on March 5, 2001, to address damages resulting from the 1996 release. The CD requires that LMPI pay \$2.45 million to the Department of the Interior NRDAR Fund. The CD stipulates that these funds are to be "... utilized for reimbursement of past natural resource damage assessment costs, and restoration, replacement or acquisition of endangered and threatened fishes and mussels located in the Powell River and its watershed, or restoration, replacement or acquisition of their habitats or ecosystems which support them, or for restoration planning, implementation,

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Scenic Fletcher's Ford on the Powell River is home to numerous imperiled species.